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Prelims Marathon

4th week February, 2024

*HISTORY
ECONOMICS
POLITY
SCIENCE AND TECHNOLOGY
GEOGRAPHY AND ENVIRONMENT*

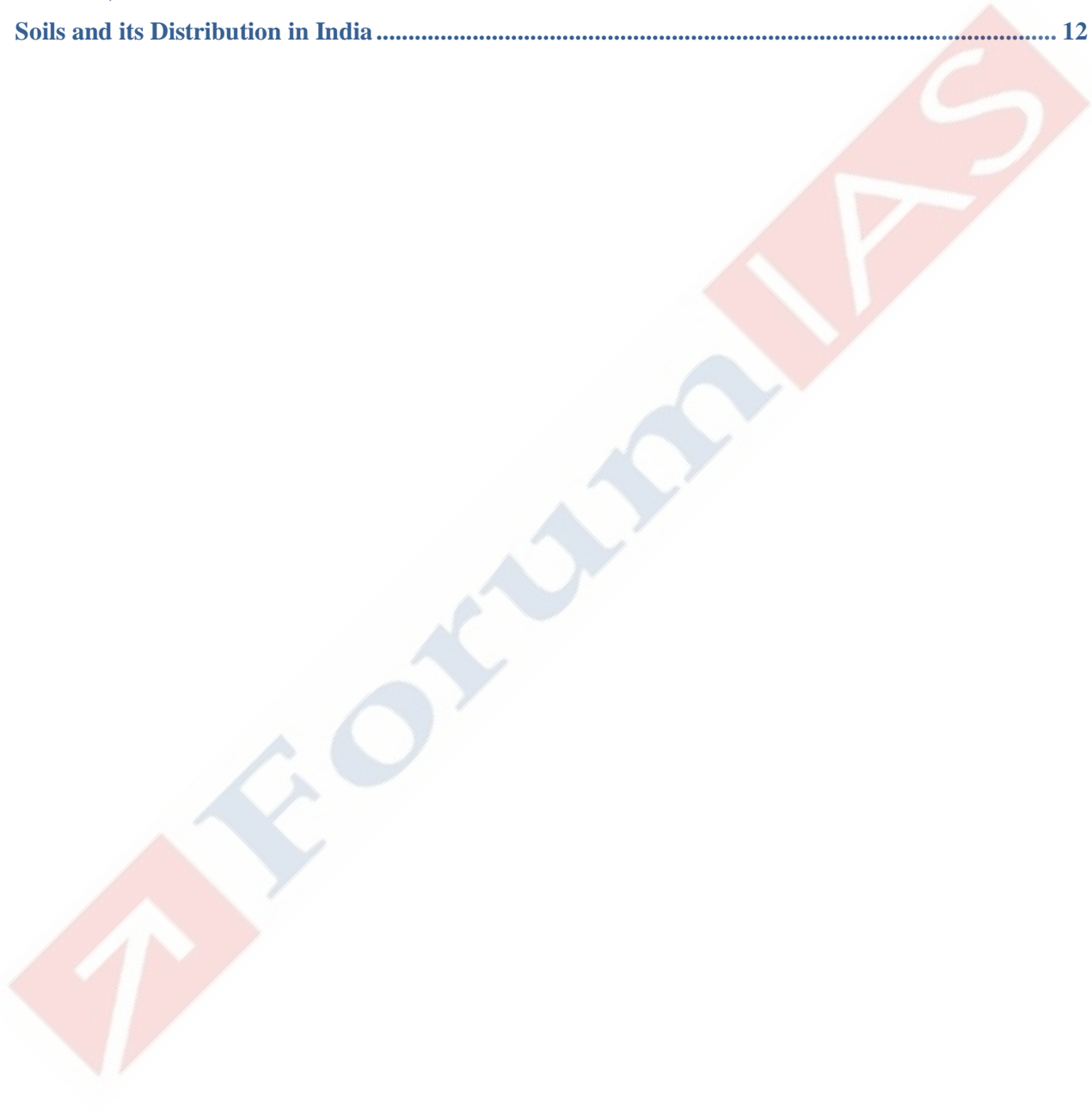
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Geography

Structure Relief and Physiographic divisions of India

Q.1) Consider the following statements:

1. India's territorial limit further extends towards the sea up to 24 nautical miles.
2. The latitudinal and longitudinal extents of India are roughly about 30 degrees.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: The mainland of India extends from Kashmir in the north to Kanniyakumari in the south and Arunachal Pradesh in the east to Gujarat in the west.

- India's territorial limit further extends towards the sea up to 12 nautical miles (about 21.9 km) from the coast.
- Our southern boundary extends up to 6°45' N latitude in the Bay of Bengal.
- The latitudinal and longitudinal extent of India, they are roughly about 30 degrees, whereas the actual distance measured from north to south extremity is 3,214 km, and that from east to west is only 2,933 km.

Source: NCERT

Q.2) Consider the following statements:

1. The distance between two longitudes decreases towards the poles.
2. The distance between two latitudes remains the same everywhere.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The latitudinal and longitudinal extent of India, they are roughly about 30 degrees, whereas the actual distance measured from north to south extremity is 3,214 km, and that from east to west is only 2,933 km.

This difference is based on the fact that the distance between two longitudes decreases towards the poles whereas the distance between two latitudes remains the same everywhere.

Source: NCERT

Q.3) Consider the following statements:

1. The southern part of the country lies within the tropics.
2. The northern part lies in the warm temperate zone.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: It is understood that the southern part of the country lies within the tropics and the northern part lies in the sub-tropical zone or the warm temperate zone.

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This location is responsible for large variations in land forms, climate, soil types and natural vegetation in the country.

Source: NCERT

Q.4) Consider the following statements:

1. Indian Standard Time is ahead of Greenwich Mean Time by 5 hours and 30 minutes.
2. United States of America (USA) has four time zones.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: A

Explanation: There is a general understanding among the countries of the world to select the standard meridian in multiples of $7^{\circ}30'$ of longitude.

- That is why $82^{\circ}30'$ E has been selected as the 'standard meridian' of India.
- Indian Standard Time is ahead of Greenwich Mean Time by 5 hours and 30 minutes.
- There are some countries where there is more than one standard meridian due to their vast east-to-west extent. For example, the USA has seven time zones.

Source: NCERT

Q.5) The term "Marusthali" is related to which of the following?

- a) River
- b) Lakes
- c) Deserts
- d) Mountains

ANS: C

Explanation: The size of India has endowed her with great physical diversity.

Thus, you may appreciate the presence of lofty mountains in the north; large rivers such as Ganga, Brahmaputra, Mahanadi, Krishna, Godavari and Kaveri; green forested hills in northeast and south India; and the vast sandy expanse of Marusthali.

Source: NCERT

Q.6) Which of the following is/are passes located in Himalayan region?

1. Bolan
2. Shipkila
3. Bomdila

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: The Himalayas, together with other ranges, have acted as a formidable physical barrier in the past.

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Except for a few mountain passes such as the Khyber, the Bolan, the Shipkila, the Nathula, the Bomdila, etc. it was difficult to cross it.

Source: NCERT

Q.7) The famous “Aravali Range” is located at?

- a) Southern India
- b) North East India
- c) Central India
- d) Western India

ANS: D

Explanation: The northern boundary of the Peninsular Block may be taken as an irregular line running from Kachchh along the western flank of the Aravali Range near Delhi and then roughly parallel to the Yamuna and the Ganga as far as the Rajmahal Hills and the Ganga delta.

Source: NCERT

Q.8) Which of the following hill/s is/are part of peninsular India?

- 1. Nallamala hills
- 2. Javadi hills
- 3. Veliconda hills

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: The Peninsula mostly consists of relict and residual mountains like the Aravali hills, the Nallamala hills, the Javadi hills, the Veliconda hills, the Palkonda range and the Mahendragiri hills, etc.

Source: NCERT

Q.9) Which of the following river/s is/are forming delta/s?

- 1. Godavari
- 2. Krishna
- 3. Mahanadi

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: Most of the east flowing rivers form deltas before entering into the Bay of Bengal.

The deltas formed by the Mahanadi, the Krishna, the Kaveri and the Godavari are important examples.

Source: NCERT

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Q.10) Which of the following is/are feature/s of youthful stage of Himalayas?

1. V – shaped valleys
2. Gorges
3. Rapids

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: The Himalayas along with other peninsular mountains are young, weak and flexible in their geological structure unlike the rigid and stable Peninsular Block.

Consequently, they are still subjected to the interplay of exogenic and endogenic forces, resulting in the development of faults, folds and thrust plains.

These mountains are tectonic in origin, dissected by fast-flowing rivers which are in their youthful stage. Various landforms like gorges, V-shaped valleys, rapids, waterfalls, etc. are indicative of this stage.

Source: NCERT

Drainage System of India

Q.1) Which of the following is/are factor/s determine the drainage pattern of an area?

1. The geological time period
2. Structure of rocks
3. Slope

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: The drainage pattern of an area is the outcome of the geological time period, nature and structure of rocks, topography, slope, amount of water flowing and the periodicity of the flow.

Source: NCERT

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Q.2) Consider the following statements:

1. The flow of water through well-defined channels is known as drainage.
2. A river drains the water collected from a specific area, which is called its 'catchment area'.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The flow of water through well-defined channels is known as 'drainage' and the network of such channels is called a 'drainage system'.

A river drains the water collected from a specific area, which is called its 'catchment area'.

Source: NCERT

Q.3) The drainage pattern resembling the branches of a tree is known as?

- a) Dendritic
- b) Trellis
- c) Radial
- d) Centripetal

ANS: A

Explanation: The drainage pattern resembling the branches of a tree is known as "dendritic" the examples of which are the rivers of northern plain.

Source: NCERT

Q.4) Consider the following statements:

1. The primary tributaries of rivers flow parallel to each other and secondary tributaries join them at right angles, the pattern is known as centripetal.
2. The rivers discharge their waters from all directions in a lake or depression, the pattern is known as trellis.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: D

Explanation: The drainage pattern resembling the branches of a tree is known as "dendritic" the examples of which are the rivers of northern plain.

- When the rivers originate from a hill and flow in all directions, the drainage pattern is known as 'radial'. The rivers originating from the Amarkantak range present a good example of it.
- When the primary tributaries of rivers flow parallel to each other and secondary tributaries join them at right angles, the pattern is known as 'trellis'.
- When the rivers discharge their waters from all directions in a lake or depression, the pattern is known as 'centripetal'.

Source: NCERT

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Q.5) Which of the following river/s is/are discharge into Arabian Sea?

1. Narmada
2. Tapi
3. Mahi

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: Nearly 77 per cent of the drainage area consisting of the Ganga, the Brahmaputra, the Mahanadi, the Krishna, etc. is oriented towards the Bay of Bengal while 23 per cent comprising the Indus, the Narmada, the Tapi, the Mahi and the Periyar systems discharge their waters in the Arabian Sea.

Source: NCERT

Q.6) Which of the following river basin/s is/are major basin/s of India?

1. Meghna
2. Krishna
3. Barak

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: B

Explanation: Major river basins with more than 20,000 sq. km of catchment area.

It includes 14 drainage basins such as the Ganga, the Brahmaputra, the Krishna, the Tapi, the Narmada, the Mahi, the Pennar, the Sabarmati, the Barak, etc.

Source: NCERT

Q.7) Consider the following statements regarding Himalayan drainage system:

1. Rivers of this system are perennial.
2. The rivers of this system are passing through the giant gorges carved out by the erosion activity.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The Himalayan drainage system has evolved through a long geological history.

- It mainly includes the Ganga, the Indus and the Brahmaputra river basins.
- Since these are fed both by melting of snow and precipitation, rivers of this system are perennial.
- These rivers pass through the giant gorges carved out by the erosion activity carried on simultaneously with the uplift of the Himalayas.

Source: NCERT

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Q.8) Which of the following river known as “Sorrow of Bihar”?

- a) Tapti
- b) Gomti
- c) Gandak
- d) Kosi

ANS: D

Explanation: In the Himalayan reaches, the course of these rivers is highly tortuous, but over the plains they display a strong meandering tendency and shift their courses frequently.

- River Kosi, also known as the ‘sorrow of Bihar’, has been notorious for frequently changing its course.
- The Kosi brings huge quantity of sediments from its upper reaches and deposits it in the plains. The course gets blocked, and consequently, the river changes its course.

Source: NCERT

Q.9) Which of the following river known as “Singi Khamban”?

- a) Indus
- b) Satluj
- c) Brahmaputra
- d) Yamuna

ANS: A

Explanation: The Indus System: It is one of the largest river basins of the world, covering an area of 11,65,000 sq. km (in India it is 321, 289 sq. km and a total length of 2,880 km (in India 1,114 km).

- The Indus also known as the Sindhu, is the westernmost of the Himalayan rivers in India.
- It originates from a glacier near Bokhar Chu (31°15' N latitude and 81°40' E longitude) in the Tibetan region at an altitude of 4,164 m in the Kailash Mountain range.
- In Tibet, it is known as ‘Singi Khamban; or Lion’s mouth.

Source: NCERT

Q.10) Which of the following is not a tributary of Indus River?

- a) Lohit
- b) Nubra
- c) Hunza
- d) Zaskar

ANS: A

Explanation: The Indus receives a number of Himalayan tributaries such as the Shyok, the Gilgit, the Zaskar, the Hunza, the Nubra, the Shigar, the Gasting and the Dras.

Source: NCERT

Weather, Climate & Seasons of India

Q.1) Consider the following statements:

1. Weather is the momentary state of the atmosphere and changes quickly.
2. Climate is the average of the weather conditions over a longer period of time and changes may be noted after 50 years or even more.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Weather is the momentary state of the atmosphere while climate refers to the average of the weather conditions over a longer period of time.

Weather changes quickly, may be within a day or week but climate changes imperceptively and may be noted after 50 years or even more.

Source: NCERT

Q.2) Which of the following is/are element/s of weather?

1. Temperature
2. Rainfall
3. Pressure

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: In northeastern states, winters are mild except in the hills. There are variations in weather conditions during different seasons.

These changes occur due to the changes in the elements of weather (temperature, pressure, wind direction and velocity, humidity and precipitation, etc.).

Source: NCERT

Q.3) Which of the following area/s is/are receive rainfall over 1,080 cm in a year?

1. Jaisalmer
2. Cherrapunji
3. Mawsynram

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: B

Explanation: While snowfall occurs in the Himalayas, it only rains over the rest of the country.

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- Similarly, variations are noticeable not only in the type of precipitation but also in its amount.
- While Cherrapunji and Mawsynram in the Khasi Hills of Meghalaya receive rainfall over 1,080 cm in a year, Jaisalmer in Rajasthan rarely gets more than 9 cm of rainfall during the same period.

Source: NCERT

Q.4) Consider the following statements:

1. The tropical zone being nearer to the equator, experiences high temperatures throughout the year with small daily and annual range.
2. The areas north of the Tropic of Cancer being away from the equator, experiences extreme climate with high daily and annual range of temperature.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The Tropic of Cancer passes through the central part of India in east-west direction.

- Thus, northern part of the India lies in sub-tropical and temperate zone and the part lying south of the Tropic of Cancer falls in the tropical zone.
- The tropical zone being nearer to the equator, experiences high temperatures throughout the year with small daily and annual range.
- Area north of the Tropic of Cancer being away from the equator, experiences extreme climate with high daily and annual range of temperature.

Source: NCERT

Q.5) Consider the following statements regarding Himalayas:

1. They trap the monsoon winds, forcing them to shed their moisture within the subcontinent.
2. They provide an invincible shield to protect the subcontinent from the cold northern winds.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The lofty Himalayas in the north along with its extensions act as an effective climatic divide.

- The towering mountain chain provides an invincible shield to protect the subcontinent from the cold northern winds.
- These cold and chilly winds originate near the Arctic Circle and blow across central and eastern Asia.
- The Himalayas also trap the monsoon winds, forcing them to shed their moisture within the subcontinent.

Source: NCERT

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Q.6) Consider the following statements:

1. The differential heating of land and sea creates different air pressure zones in different seasons in and around the Indian subcontinent.
2. Difference in air pressure causes reversal in the direction of monsoon winds.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: India is flanked by the Indian Ocean on three sides in the south and girdled by a high and continuous mountain-wall in the north.

- As compared to the landmass, water heats up or cools down slowly.
- This differential heating of land and sea creates different air pressure zones in different seasons in and around the Indian subcontinent.
- Difference in air pressure causes reversal in the direction of monsoon winds.

Source: NCERT

Q.7) The Inter Tropical Convergence Zone (ITCZ) is a low pressure zone located at?

- a) Equator
- b) Subtropical high pressure zone
- c) Polar areas
- d) Sub-polar low pressure areas

ANS: A

Explanation: The Inter Tropical Convergence Zone (ITCZ) is a low pressure zone located at the equator where trade winds converge, and so, it is a zone where air tends to ascend.

Source: NCERT

Q.8) Consider the following statements EI – Nino:

1. It means ‘Child Christ’ because this current appears around Christmas in December.
2. It is used in India for forecasting long range monsoon rainfall.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: The word EI-Nino means ‘Child Christ’ because this current appears around Christmas in December.

- December is a summer month in Peru (Southern Hemisphere).
- EI-Nino is used in India for forecasting long range monsoon rainfall.
- In 1990-91, there was a wild EI-Nino event and the onset of southwest monsoon was delayed over most parts of the country ranging from five to twelve days.

Source: NCERT

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Q.9) In India, the term “Loo” means?

- a) Sea breeze
- b) Hot winds
- c) Cold winds
- d) Monsoon winds

ANS: B

Explanation: Loo: Hot, dry and oppressing winds blowing in the Northern plains from Punjab to Bihar with higher intensity between Delhi and Patna.

Source: NCERT

Q.10) The term “Bardoisila” associated with which of the following?

- a) Kerala
- b) Andhra Pradesh
- c) Rajasthan
- d) Assam

ANS: D

Explanation: Nor Westers: These are dreaded evening thunderstorms in Bengal and Assam.

- Their notorious nature can be understood from the local nomenclature of ‘Kalbaisakhi’, a calamity of the month of Baisakh.
- These showers are useful for tea, jute and rice cultivation. In Assam, these storms are known as “Bardoisila”.

Source: NCERT

Soils and its Distribution in India

Q.1) Which of the following is/are factor/s affecting the formation of soil?

- 1. Time
- 2. Vegetation
- 3. Parent material

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: Soil is the mixture of rock debris and organic materials which develop on the earth’s surface.

The major factors affecting the formation of soil are relief, parent material, climate, vegetation and other life-forms and time.

Source: NCERT

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Q.2) Which of the following is/are component/s of soil?

1. Mineral particles
2. Water
3. Air

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) None

ANS: C

Explanation: Components of the soil are mineral particles, humus, water and air.

- The actual amount of each of these depends upon the type of soil.
- Some soils are deficient in one or more of these, while there are some others that have varied combinations.

Source: NCERT

Q.3) Which of the following layer is the first stage in the soil formation process?

- a) Horizon A
- b) Horizon B
- c) Horizon C
- d) Both A and B

ANS: C

Explanation: If we dig a pit on land and look at the soil, we find that it consists of three layers which are called horizons.

- 'Horizon A' is the topmost zone, where organic materials have got incorporated with the mineral matter, nutrients and water, which are necessary for the growth of plants.
- 'Horizon B' is a transition zone between the 'horizon A' and 'horizon C', and contains matter derived from below as well as from above.
- It has some organic matter in it, although the mineral matter is noticeably weathered.
- 'Horizon C' is composed of the loose parent material. This layer is the first stage in the soil formation process and eventually forms the above two layers.
- This arrangement of layers is known as the soil profile.

Source: NCERT

Q.4) Which of the following soil is the largest soil found in India?

- a) Inceptisols
- b) Entisols
- c) Alfisols
- d) Vertisols

ANS: A

Explanation:

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ICAR has classified the soils of India into the following order as per the USDA soil taxonomy

Sl. No.	Order	Area (in Thousand Hectares)	Percentage
(i)	Inceptisols	130372.90	39.74
(ii)	Entisols	92131.71	28.08
(iii)	Alfisols	44448.68	13.55
(iv)	Vertisols	27960.00	8.52
(v)	Aridisols	14069.00	4.28
(vi)	Ultisols	8250.00	2.51
(vii)	Mollisols	1320.00	0.40
(viii)	Others	9503.10	2.92
Total			100

Source: NCERT

Q.5) Consider the following statements:

1. Alluvial soils are widespread in the northern plains and the river valleys.
2. Alluvial soils cover about 40 per cent of the total area of the country.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Alluvial soils are widespread in the northern plains and the river valleys. These soils cover about 40 per cent of the total area of the country.

Source: NCERT

Q.6) Consider the following statements regarding "Alluvial Soils":

1. They are depositional soils.
2. They vary in nature from sandy loam to clay.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Alluvial Soils are depositional soils, transported and deposited by rivers and streams.

- Through a narrow corridor in Rajasthan, they extend into the plains of Gujarat.
- In the Peninsular region, they are found in deltas of the east coast and in the river valleys.
- The alluvial soils vary in nature from sandy loam to clay.

Source: NCERT

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Q.7) The terms “Khadar and Bhangar” associated with which of the following?

- a) Alluvial soils
- b) Black soils
- c) Laterite soils
- d) Red soils

ANS: A

Explanation: The alluvial soils vary in nature from sandy loam to clay. They are generally rich in potash but poor in phosphorous.

- In the Upper and Middle Ganga plain, two different types of alluvial soils have developed, viz. Khadar and Bhangar.
- Khadar is the new alluvium and is deposited by floods annually, which enriches the soil by depositing fine silts.
- Bhangar represents a system of older alluvium, deposited away from the flood plains.

Source: NCERT

Q.8) Which of the following soil called as “Regur Soil”?

- a) Alluvial soils
- b) Black soils
- c) Laterite soils
- d) Red soils

ANS: B

Explanation: black soils are also known as the ‘Regur Soil’ or the ‘Black Cotton Soil’.

Source: NCERT

Q.9) Consider the following statements regarding black soils:

1. They are rich in lime, potash and phosphorous.
2. The color of the soil ranges from deep black to grey.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: B

Explanation: Chemically, the black soils are rich in lime, iron, magnesia and alumina.

- They also contain potash. But they lack in phosphorous, nitrogen and organic matter.
- The color of the soil ranges from deep black to grey.

Source: NCERT

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Q.10) Consider the following statements:

1. Red soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern part of the Deccan Plateau.
2. The red soil develops a reddish color due to a wide diffusion of iron in crystalline and metamorphic rocks.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

ANS: C

Explanation: Red soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern part of the Deccan Plateau.

The soil develops a reddish color due to a wide diffusion of iron in crystalline and metamorphic rocks.

Source: NCERT